



## Redwood Barn Nursery

1607 Fifth Street Davis, California

### Honeydew and Holes: Late Summer Garden Issues

Sticky yards and perforated leaves? Must be mid-summer in the Valley. I figure when several people in a row walk in with the same problems one morning, perhaps it's time for me to write about some common summer pests.

#### **Honeydew**

Late summer outbreaks of aphids cause trees to drip sticky honeydew onto surfaces below them. It can get bad enough that mold grows on the surface, ants may be attracted, and leaves and debris stick to your shoes. It is pretty gross, kind of like having a light daily film of maple syrup sprayed over your yard.

These aren't the spring aphids you had on your roses. These are often only found on a particular type of plant. We call that "host-specific" and it is good news: the pest will only typically feed on one species or a narrow range of species in your yard.

Most aphids simply disappear within a few weeks as natural predators eat them. The question is how much of the nuisance, the sticky drip or the sheer numbers of bugs themselves, you can tolerate. In applying the principles of Integrated Pest Management, we call that the treatment threshold, and then we choose the least toxic management alternative that will give the best results. We may decide to ignore the problem, knowing that pest outbreaks run their course and tend to have predictable duration.

#### **Aphids on crapemyrtles.**

Crapemyrtle Aphid, (*Tinocallis kahawaluokalani*).

As you can tell from the species name, this was first identified in Hawai'i, but it is actually native to Asia where crapemyrtles originated.

Ordinarily you don't need to do anything about crapemyrtle aphid. The leaves get sticky and shiny, but crapemyrtles can sustain very high populations without loss of vigor.

Over a lawn or border, the honeydew just disappears into the landscape.

Natural predators will eventually control them. Ladybird beetles (ladybugs), green lacewings, syrphid flies (hoverflies; their larvae eat aphids) and tiny parasitic wasps increase in population very rapidly in response to aphid populations and will give control within a few weeks. Every crapemyrtle I look at has the aphids, and also has lacewings and ladybugs.

The honeydew excreted by the aphids is just sugar solution, so it does wash off. The aphids and sticky drip peak between late July and late August, and are usually almost gone by September. But that can be a long time to be rinsing off your car, porch, patio, and the kids' play house every single day. A pressure washer is more effective than a hose nozzle, and you get some pest control by washing the tree as well as the surfaces.

#### **Does it help to release natural predators? How can you encourage them?**

There are hundreds of crapemyrtles in Davis and the aphid is only a problem on some. On most, natural enemies give acceptable control. Why? Mostly it has to do with the placement of the tree and the lack of vegetation nearby.

Releasing ladybugs and lacewings probably won't make much difference. If they would stick around, chances are you already have them. A yard with diverse foliage, lots of flowers throughout the season, moisture from nearby grasses, and a tolerable level of



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aphids and other pests on some other plants can support a good population of beneficial insects and birds to provide natural pest control. If you spray, you run the risk of damaging the beneficials and may make the problem worse.

### Other control measures

Vigorously rinsing young trees with water can be helpful. Spraying with organic options such as neem or light summer oil can reduce the population for a short period, although spraying a tree is often impractical and the residue of these oils can be almost as annoying as the honeydew.

In dire situations, some will consider using a systemic insecticide.

*“I’m thinking of taking my tree out. We can’t even use our patio.”*

Ok, that’s pretty dire. I am reluctant to recommend the widespread use of systemic insecticides, but recognize that some pest situations may be intolerable.

Imidacloprid, a neonicotinoid insecticide, is applied right around the trunk as a soil drench and moves up in the tree at the rate of about a foot a day, providing a high level of control and remaining in the plant for up to a year.

Imidacloprid has very low toxicity to people and pets. It can be carefully applied in a manner to limit uptake almost entirely to the shrub or tree. The problem with this class of insecticide is the impact on pollinators and beneficial insects, since it is present in the pollen and nectar of the plant. It is recommended that systemic insecticides be applied *after* the plant has passed its peak of bloom. In the case of crapemyrtles, the bloom peaks in July, with fewer flowers in late summer.

Imidacloprid got early attention and a lot of media coverage as researchers sought to determine the causes of Colony Collapse Disorder of European honeybees. Although quite toxic to bees when sprayed on flowers they are visiting, current consensus is that it is just one of many factors in CCD. That’s good news, but neonicotinoids do have adverse effects on our native solitary and ground-dwelling pollinators. Use them as little as possible and, as always, read and follow the label directions.

Let’s re-think crapemyrtle as a tree to shade patios and spas and play areas, plant them instead out in the lawn or mixed landscape plantings where we can enjoy the flowers, and consider systemics as a last resort.

### Honeydew under oaks.

Native and ornamental oaks get woolly oak aphids (*Stegophylla querci* or *S. essigi*), or sometimes lecanium scale or crown whiteflies, in large enough numbers to cause annoying honeydew drip. It is less severe and varies more from year to year than the aphid on crapemyrtles. The same management principles apply: mostly ignore it if possible. It is rarely necessary to treat oaks except when they are over driveways or courtyards. The flowers are wind-pollinated and thus not as attractive to insects, and they bloom mostly in late winter.

### Other summer aphids: aphids on milkweed.

Oleander aphid (*Aphis nerii*) is a bright orange pest that is mostly host-specific to two plants that are otherwise toxic to the rest of us: oleanders (*Nerium* species) and milkweed (*Asclepias* species). You may find them on periwinkle (*Vinca minor* or *V.*



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*major*). People are rarely concerned about them on oleanders, but milkweed species are popular as larval food sources for monarch butterflies and to attract other butterflies. Milkweed is a major draw for butterflies of all types, so pesticide use is out of the question. The aphids don't hurt the plant and, as above, you will find that natural predators come along and eat most of them. Meanwhile, spray them off vigorously with water every day or so.

### Holes in leaves

July and August are also when copious holes show up in the leaves of certain shrubs and trees.

Roses, wisteria, and redbuds sometimes have neat holes along the leaf edges that appear to have been cut out carefully. It looks as though someone took a paper punch repeatedly to the same leaf.

Alfalfa leafcutter bee was introduced into the United States in the 1940's to pollinate alfalfa and other crops. It is now a resident, non-aggressive pollinator, very common in gardens and landscapes.

The female saws off circles of the leaf, always working from the outside edge, and then carries them back to line her nest. She will often visit the same plant repeatedly over a few weeks. It is a small bee about 2/3 the size of a honeybee and rather drab in coloration, so most people never notice them. She will nest in logs, dead trees, hollow bamboo stakes, in the siding of your house, etc.

This is a beneficial insect, so leave her alone! They only sting "when squeezed or antagonized" and the sting is "considered half as painful as a honeybee." The damage to the plants is cosmetic.

### Perforated elm leaves

This was more common when Davis and Sacramento had stately old elm trees. They're mostly gone, but Siberian elm is a weedy species still present in older parts of town.

Leaves completely skeletonized? That's the Elm leaf beetle.

The simplest way to avoid them is to plant elm varieties that are resistant. Natural predators are usually not enough to significantly reduce the population on susceptible types of elms.

I have several elms planted in close proximity: a self-planted Siberian elm, the hybrid variety Accolade, the Drake and Tru-Green varieties of Chinese elm, and a zelkova. Zelkova is in the elm family and is the street tree on Elmwood Drive, and is a commonly recommended street tree here.

The Siberian elm, which I intend to remove, is nearly defoliated. Damage on Accolade elm is barely noticeable, and I was unable to find any on my Chinese elms. I get reports of leaf beetle occasionally on Zelkova, but it is not a preferred host and there were none on mine. If you are getting them on your Zelkova or hybrid elm, look around for a Siberian elm in the vicinity and consider removing that as it is likely the major host.

A good rule of thumb: most pest problems last about six weeks. That's a long time to deal with sticky stuff all over your yard, but as the Persian adage says, "this too will pass."



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More on the crapemyrtle aphid here: <http://edis.ifas.ufl.edu/in663>

Woolly aphid on oaks:

[https://www.fs.fed.us/psw/publications/documents/psw\\_gtr197/psw\\_gtr197.pdf](https://www.fs.fed.us/psw/publications/documents/psw_gtr197/psw_gtr197.pdf)

Elm leaf beetle: <http://ipm.ucanr.edu/PMG/PESTNOTES/pn7403.html>

More about Colony Collapse Disorder of honeybees:

[http://entomology.ucdavis.edu/News/Dont\\_Blame\\_Pesticides\\_as\\_the\\_Sole\\_Cause\\_of\\_Declining\\_Bee\\_Population,\\_Bee\\_Expert\\_Says/](http://entomology.ucdavis.edu/News/Dont_Blame_Pesticides_as_the_Sole_Cause_of_Declining_Bee_Population,_Bee_Expert_Says/)



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[http://redwoodbarn.com/images/DE\\_honeydewandholes/crape%20myrtle%20aphid%20gallery.jpg](http://redwoodbarn.com/images/DE_honeydewandholes/crape%20myrtle%20aphid%20gallery.jpg)

Crape myrtle aphids in mid-August. Upper left: heavily infested leaves. Upper right: undersides of leaves show aphids in all stages. Bottom: nearby leaves with larvae and pupae of ladybird beetles (ladybugs) which have cleaned off the aphids.



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[http://redwoodbarn.com/images/DE\\_honeydewandholes/leafcutter%20bee%20damage%20on%20cercis.jpg](http://redwoodbarn.com/images/DE_honeydewandholes/leafcutter%20bee%20damage%20on%20cercis.jpg)

The alfalfa leafcutter bee cuts precise circles out of leaves and uses them to line her nest. She prefers certain thin-leaved species such as roses, wisteria, and redbud, and the same bee returns to the same plant over and over again. They are basically harmless and not aggressive, so we just leave them alone.



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[http://redwoodbarn.com/images/DE\\_honeydewandholes/oleander%20aphid%20on%20asclepias%202.jpg](http://redwoodbarn.com/images/DE_honeydewandholes/oleander%20aphid%20on%20asclepias%202.jpg)

Kind of pretty in its own way, the oleander aphid has moved from oleander bushes, their original host, onto milkweed plants (*Asclepias* species). They reproduce rapidly, but can be managed by vigorously rinsing the plants until beneficial insects show up to eat them. Don't spray milkweed with insecticides, as they are very attractive to butterflies.



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[http://redwoodbarn.com/images/DE\\_honeydewandholes/elm%20leaf%20beetle%20gallery.jpg](http://redwoodbarn.com/images/DE_honeydewandholes/elm%20leaf%20beetle%20gallery.jpg)

Elm leaf beetle damage varies on different types. Top left: the beetle at work. Top right:

Siberian elm, a weedy local species, is very susceptible. Bottom right: minor damage on

Zelkova, which is also in the elm family. Bottom left: minor damage on the hybrid Frontier elm.



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Grasshopper damage on lilac leaves.

[http://redwoodbarn.com/images/DE\\_honeydewandholes/grasshopper%20damage%20on%20syringa.jpg](http://redwoodbarn.com/images/DE_honeydewandholes/grasshopper%20damage%20on%20syringa.jpg)